

Application No. 09/955,722
SD-6436.1 S-97675

AMENDMENTS to the CLAIMS

1-44. (CANCELLED)

45. (CURRENTLY AMENDED) A temporarily protected, non-functioning MEMS device, comprising:

a released MEMS device disposed on a substrate; and

a protective temporary, immobilizing coating directly contacting and ~~protecting~~ immobilizing the released MEMS device; wherein the ~~protective temporary, immobilizing~~ coating is selected from the group consisting of parylene, carbon, amorphous carbon, diamond-like carbon, perfluoropolyether, and perfluorodecanoic carboxylic acid;

wherein the ~~protective temporary, immobilizing~~ coating is sufficiently thick so as to immobilize any movable elements of the released MEMS device; and

wherein the temporary, immobilizing ~~protective~~ coating is insoluble in water and organic solvents; and

wherein said temporarily protected, non-functioning MEMS device represents an intermediate step in the process of fabricating a fully-functional MEMS device.

46. (CURRENTLY AMENDED) The temporarily protected, non-functioning MEMS device of claim 45, wherein the substrate comprises a wafer comprising a plurality of released MEMS devices coated directly with the protective temporary, immobilizing coating.

47. (CURRENTLY AMENDED) The temporarily protected, non-functioning MEMS device of claim 46, wherein the protective temporary, immobilizing coating is excluded from covering any wafer streets.

48. (CURRENTLY AMENDED) The temporarily protected, non-functioning MEMS device of claim 45, wherein the substrate comprises a die.

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49. (CURRENTLY AMENDED) The temporarily protected, non-functioning MEMS device of claim 48, wherein the die is mechanically attached and electrically interconnected to a package.
50. (CURRENTLY AMENDED) The temporarily protected, non-functioning MEMS device of claim 48, wherein the die is wirebonded to the package.
51. (CURRENTLY AMENDED) The temporarily protected, non-functioning MEMS device of claim 48, wherein the die is flip-chip bonded to the package.
52. (CURRENTLY AMENDED) The temporarily protected, non-functioning MEMS device of claim 45, wherein the ~~protective~~ temporary, immobilizing coating comprises parylene; and wherein the parylene coating comprises one or more polymers selected from the group consisting of poly-para-xylylene, poly-para-xylylene modified by the substitution of a chlorine atom for one aromatic hydrogen, and poly-para-xylylene modified by the substitution of a chlorine atom for two aromatic hydrogens.
53. (CURRENTLY AMENDED) The temporarily protected, non-functioning MEMS device of claim 45, wherein the protective temporary, immobilizing coating comprises parylene; and wherein the parylene coating comprises a copolymer compound formed by blending a reactive parylene monomer with a reactive material.
54. (CURRENTLY AMENDED) The temporarily protected, non-functioning MEMS device of claim 53, wherein the reactive material comprises a monomer comprising one or more elements selected from the group consisting of silicon, carbon, and fluorine.
55. (CURRENTLY AMENDED) A temporarily protected, non-functioning wafer, comprising:
a wafer comprising a plurality of released MEMS devices disposed on the wafer;
and

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a protective temporary, immobilizing coating of parylene directly contacting and
protecting immobilizing the released MEMS devices;
wherein the protective temporary, immobilizing coating is sufficiently thick so as to
immobilize any movable elements of the released MEMS devices; and
wherein the temporary, immobilizing coating protects the released MEMS devices
during a die singulation step.

56. (CURRENTLY AMENDED) The temporarily protected, non-functioning wafer of claim 55, wherein the protective temporary, immobilizing coating of parylene is excluded from covering any wafer streets.
57. (CURRENTLY AMENDED) A temporarily protected, non-functioning MEMS device, comprising:
a released MEMS device disposed on a die; and
a protective temporary, immobilizing coating of parylene directly contacting and
protecting immobilizing the released MEMS device;
wherein the protective temporary, immobilizing coating is sufficiently thick so as to
immobilize any movable elements of the released MEMS device; and
wherein said temporarily protected, non-functioning MEMS device represents an
intermediate step in the process of fabricating a fully-functional MEMS device.
58. (CURRENTLY AMENDED) The temporarily protected, non-functioning MEMS device of claim 57, wherein the die is mechanically attached and electrically interconnected to a package.
59. (CURRENTLY AMENDED) The temporarily protected, non-functioning MEMS device of claim 58, wherein the die is wirebonded to the package.
60. (CURRENTLY AMENDED) The temporarily protected, non-functioning MEMS device of claim 58, wherein the die is flip-chip bonded to the package.